

# Index to Feature Material

Covers feature articles, New Materials Previews, MATERIALS & METHODS Manuals, Engineering File Facts

## ADHESIVES (see WELDING)

## ALUMINUM AND ITS ALLOYS

- Aluminized Coating, New—Mar, p 104
- Aluminum Alloy Screw Machine Parts—May, p 122
- Aluminum Chain—June, p 124
- Aluminum Powder Metallurgy Products—Apr, p 106
- Ceramic Mold Castings—Jan, p 100
- Chromium Plate for Aluminum and Titanium—May, p 120
- Forgings in Aircraft Save Weight, Improve Design—Mar, p 106
- Porcelain Enamel, What's New in —Jan, p 92
- Self-Insulated Aluminum Strip and Wire (Preview)—May, p 167
- Wrought Aluminum Alloys (M&M Manual)—Jan, p 109

## BRAZING (see WELDING)

## CARBON, GRAPHITE (see NONMETALLIC MATERIALS)

## CASTINGS, CASTING

- Bronze Shapes, Continuous Cast—Feb, p 108
- Ceramic Mold Steel Castings—Jan, p 100
- Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121
- Gray Iron, Properties of (File Fact)—Mar, p 141
- Magnesium Alloy Castings, New Nondestructive Test for—Jan, p 98
- Malleable Iron Castings, Redesigning for—June, p 140
- Metal Powder Slip Castings—May, p 132
- Pearlitic Malleable Iron, Thicker Sections Feasible in New (Preview)—Apr, p 159
- Rubber-Modified Alkyd Sealers for Castings—Apr, p 130

## CERAMICS, CERMETS

- Boride Parts Resist Molten Zinc—June, p 132
- Boron Nitride—Jan, p 88
- Inorganic Block Insulation (Preview)—Apr, p 163
- Slip Castings, Metal Powder—May, p 132

## COATINGS, FINISHES

- Aluminized Coating, New—Mar, p 104
- Chromium Plate for Aluminum and Titanium, New—May, p 120
- Flame-Plated Coatings Where Service Is Severe—Feb, p 100
- Porcelain Enamel, What's New in —Jan, p 92
- Rubber-Modified Alkyd Sealers for Castings—Apr, p 130
- Titanate Coatings, New—June, p 120
- Wrought Aluminum Alloys (M&M Manual)—Jan, p 109

## COPPER, BRASS, BRONZE

- Bronze Shapes Continuous Cast—Feb, p 108
- Ceramic Mold Castings—Jan, p 100
- Metal Powder Parts, Large—Apr, p 112

## ENGINEERING FILE FACTS

- Brazing, Nomograph Selects Size of Wire for—Jan, p 129
- Forgeable Metals and Forging Design—June, p 161
- Gray Iron, Properties of—Mar, p 141
- Mechanical Felts, Applications and Properties of—Apr, p 155
- Nylon Plastics, Properties of—May, p 161
- Steel Heat Treating Temperatures and Hardness after Treatment—Jan, p 127
- Titanium and Titanium Alloys, Nomographs for Calculating Hot-Air Contamination of Commercial—Feb, p 139
- Tool Steels—Identification and Type Classification—May, p 163

## EXTRUSIONS, EXTRUDING

- Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121

## FABRICS, FIBERS

- Asbestos-Reinforced Low Pressure Laminates—Feb, p 103
- Bonded Fabrics—Feb, p 116
- Floor Covering Materials for Heavy Service—Jan, p 85
- Glass Finish for Reinforced Plastics, A Universal—Jan, p 106
- Mechanical Felts, Applications and Properties of (File Fact)—Apr, p 155
- Pressure Sensitive Tapes (M&M Manual)—Mar, p 123

## FELT (see FABRICS, FIBERS)

## FORGINGS, FORGING

- Aluminum Alloys, Wrought (M&M Manual)—Jan, p 109
- Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121
- Forgeable Metals and Forging Design (File Fact)—June, p 161
- Forgings in Aircraft Save Weight, Improve Design—Mar, p 107
- Leaded Forging Steels—Jan, p 104

## FORMED SHAPES, FORMING

- Aluminum Alloys, Wrought (M&M Manual)—Jan, p 109
- Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121

## GENERAL

- Better Materials Selection, Improve Quality, Reduce Costs through (Special Report)—May, p 135
- Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121
- Statistical Quality Control, How to Use for Materials Selection—Apr, p 120

## GLASS (see NONMETALLIC MATERIALS)

## HEAT TREATMENT, HEATING

- Aluminum Alloys, Wrought (M&M Manual)—Jan, p 109
- Steel Heat Treating Temperatures and Hardness after Treatment (File Fact)—Jan, p 127
- Titanium, How to Heat Treat—June, p 126
- Titanium and Titanium Alloys, Nomographs for Calculating

Vol. 43, Jan-June 1956

Hot-Air Contamination of Commercial (File Fact)—Feb, p 139

## IRONS

- Gray Iron, Properties of (File Fact)—Mar, p 141
- Malleable Iron Castings, Redesigning for—June, p 140
- Pearlitic Malleable Iron, Thicker Sections Feasible in New (Preview)—Apr, p 159
- Porcelain Enamel, What's New in —Jan, p 92

## MACHINED PARTS, MACHINING

- Aluminum Alloy Screw Machine Parts—May, p 122
- Aluminum Alloys, Wrought (M&M Manual)—Jan, p 109
- Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121

## MAGNESIUM AND ITS ALLOYS

- Magnesium Alloy Castings, New Nondestructive Test for—Jan, p 98
- Magnesium-Thorium Sheet—Mar, p 114

## MANUALS, MATERIALS & METHODS

- Fabricated Metal Parts—Design and Selection Factors—Feb, p 121
- Foam Plastics—June, p 143
- Pressure Sensitive Tapes—Mar, p 123

- Stainless Steels, The New—Apr, p 137
- Wrought Aluminum Alloys—Jan, p 109

## NONFERROUS METALS, (see also ALUMINUM, COPPER, MAGNESIUM, TITANIUM)

- Ceramic Mold Castings—Jan, p 100
- Flame-Plated Coatings Where Service Is Severe—Feb, p 100
- Forgeable Metals and Forging Design (File Fact)—June, p 161
- Metal Powder Slip Castings—May, p 132
- Scarce Metals, Present and Future Uses of (cesium, gallium, germanium, hafnium, indium, iridium, osmium, palladium, platinum, rhenium, rhodium, ruthenium, tellurium, thallium, thorium)—Jan, p 80

## NONMETALLIC MATERIALS (see also CERAMICS, CERMETS, FABRICS, FIBERS, PLASTICS)

- Floor Covering Materials for Heavy Service—Jan, p 85
- Graphite Performs at High Temperatures, How—May, p 126
- Modified Woods—Old and New—Mar, p 110
- Photosensitive Glass, Chemical Machining of—June, p 134
- Pressure Sensitive Tapes (M&M Manual)—Mar, p 123
- Silicone Rubbers Have High Tensile and Tear Strengths (Preview)—Mar, p 149

## PLASTICS

- Asbestos-Reinforced Low Pressure Laminates—Feb, p 103
- Bonded Fabrics—Feb, p 116
- Casting Resins Insulate and Protect Electronic Components—Feb, p 90
- Design Data for Plastics, Devel-

## Index to Feature Material

continued

- oping—Apr, p 132  
Floor Covering Materials for Heavy Service—Jan, p 85  
Foam Plastics (M&M Manual)—June, p 143  
Glass Finish for Reinforced Plastics, A Universal—Jan, p 106  
Nylon Plastics, Properties of (File Fact)—May, p 161  
Plastics Keep a 50-Ton Tank Afloat—May, p 130  
Plastics, Progress in—June, p 112  
Polyamide Resins, Versatile (Preview)—Mar, p 150  
Polyethylenes Fill the Gap, Two New (Preview)—May, p 165  
Polymethylstyrene and Methylstyrene - Acrylonitrile Copolymer (Preview)—Mar, p 145  
Pressure Sensitive Tapes (M&M Manual)—Mar, p 123  
Teflon and Nylon Bearing Materials—Mar, p 100  
Teflon Improved by New Treatment, Bonding Qualities of—Apr, p 118  
**POWDER METAL PARTS**  
Aluminum Powder Metallurgy Products—Apr, p 106  
Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121  
Large Metal Powder Parts—Apr, p 112

## RUBBER (see NONMETALLIC MATERIALS)

### STEELS

- Ceramic Mold Steel Castings—Jan, p 100  
Forgeable Metals and Forging Design (File Fact)—June, p 161  
Forgings in Aircraft Save Weight, Improve Design—Mar, p 106  
Leaded Forging Steels—Jan, p 104  
Metal Powder Slip Castings—May, p 132  
Metal Powder Parts, Large—Apr, p 112  
Porcelain Enamel, What's New in—Jan, p 92  
Stainless Steels, Rare Earth—Feb, p 96  
Stainless Steels, The New (M&M Manual)—Apr, p 137  
Stainless vs Titanium for High Speed Aircraft—Apr, p 124  
Steel Heat Treating Temperatures and Hardness after Treatment (File Fact)—Jan, p 127  
Tool Steels—Identification and Type Classification (File Fact)—May, p 163  
Ultra High Strength Steels, Present and Future—Mar, p 94

### TESTING, INSPECTION

- Magnesium Alloy Castings, New Nondestructive Test for—Jan, p 98  
Statistical Quality Control, How to Use for Materials Selection—Apr, p 120

### TITANIUM

- Chromium Plate for Aluminum

- and Titanium, New—May, p 120  
Heat Treat Titanium, How to—June, p 126  
Hot-Air Contamination of Commercial Titanium and Titanium Alloys, Nomographs for Calculating (File Fact)—Feb, p 139  
Stainless vs Titanium for High Speed Aircraft—Apr, p 124  
Where Industry Is Using Titanium—May, p 112

### TUBING

- Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121

### WELDING, JOINING, ADHESIVES

- Epoxy Adhesives, How High Temperatures Affect—Mar, p 120  
Fabricated Metal Parts—Design and Selection Factors (M&M Manual)—Feb, p 121  
Fastener, An Unusual—May, p 116  
Projection Welding Can Lower Costs, How Designing for—Feb, p 112  
Size of Wire for Brazing, Nomograph Selects (File Fact)—Jan, p 129  
Steel Bolt, 220,000 Psi (Preview)—June, p 165  
Wrought Aluminum Alloys (M&M Manual)—Jan, p 109

### WIRE

- Self-Insulated Aluminum Strip and Wire (Preview)—May, p 167

### WOOD (see NONMETALLIC MATERIALS)

## Author Index

- Beaver, H. O., Rare Earth Stainless Steels—Feb, p 96  
Brenner, Walter, Foam Plastics (M&M Manual)—June, p 143  
Burgston, C. H., How Designing for Projection Welding Can Lower Costs—Feb, p 112  
Byer, Marshall, Chemical Machining of Photosensitive Glass—June, p 134  
Campbell, John B., An Unusual Fastener—May, p 116  
Asbestos-Reinforced Low Pressure Laminates—Feb, p 103  
Bonded Fabrics—Feb, p 116  
What's New in Porcelain Enamel—Jan, p 92  
Campbell, O. L., Rubber-Modified Alkyd Sealers for Castings—Apr, p 130  
Caterson, A. G. (see Fraser, G. T.)  
Cheney, A. J., Teflon and Nylon Bearing Materials—Mar, p 100  
Clouser, H. R., Pressure Sensitive Tapes (M&M Manual)—Mar, p 123  
Entenmann, J. R., (see Fulton, D. B.)  
Evans, R. M., Boride Parts Resist Molten Zinc—June, p 132  
Everhart, John L., Large Metal Powder Parts—Apr, p 112  
Fabian, Robert J., New Titanate Coatings—June, p 120  
Ferriss, Donald P. (see Hausner, H. H.)  
Finlay, Walter L., How to Heat Treat Titanium—June, p 126  
Where Industry Is Using Titanium—May, p 112  
Fraser, G. T., Where Industry Is Using Titanium—May, p 112  
Fulton, D. B., Redesigning for Malleable Iron Castings—June, p 140

- Hall, A. M. (see Roach, D. B.)  
Happoldt, W. B. (see Cheney, A. J.)  
Hausner, H. H., Metal Powder Slip Castings—May, p 132  
Jaffee, R. I. (see Reynolds, J. E.)  
Kastelowitz, A. (see Kramer, C. R.)  
Kaufmann, D. W. (see Wentz, W. W.)  
Kirby, T. J. (see Fulton, D. B.)  
Kramer, C. R., Forgings in Aircraft Save Weight, Improve Design—Mar, p 106  
Lanphier, B. T. (see Beaver, H. O.)  
Levy, Alan V., Thorium-Magnesium Sheet—Mar, p 114  
Lewis, Floyd A., Aluminum Alloy Screw Machine Parts—May, p 122  
Loch, L. D., How Graphite Performs at High Temperatures—May, p 126  
Loucks, H. L., Casting Resins Insulate and Protect Electronic Components—Feb, p 90  
Lyle, John P., Jr., Aluminum Powder Metallurgy Products—Apr, p 106  
McDonald, J. K., Modified Woods—Old and New—Mar, p 110  
McGuiness, E. W., How High Temperatures Affect Epoxy Adhesives—Mar, p 120  
Miller, O. O. (see Sands, J. W.)  
Multer, R. K., Developing Design Data for Plastics—Apr, p 132  
Ogden, H. R. (see Reynolds, J. E.)  
Peckner, D., How to Use Statistical Quality Control for Materials Selection—Apr, p 120  
Polis, S., Floor Covering Materials for Heavy Service—Jan, p 85  
Rayfield, R. H. (see Multer, R. K.)  
Reid, H. F., Jr., Aluminum Chain—June, p 124  
Reynolds, J. E., Nomographs for Calculating Hot-Air Contamination of Titanium (File Fact)—Feb, p 139  
Riley, Malcolm W., Progress in Plastics—June, p 112  
Wrought Aluminum Alloys (M&M Manual)—Jan, p 109  
Roach, D. B., The New Stainless Steels (M&M Manual)—Apr, p 137  
Rose, Kenneth, Leaded Forging Steels—Jan, p 104  
New Aluminized Coating—Mar, p 104  
Sands, J. W., Ultra High Strength Steels, Present and Future—Mar, p 94  
Sims, Chester T., Present and Future Uses of Scarce Metals—Jan, p 80  
Sloan, R. G., Stainless vs Titanium for High Speed Aircraft—Apr, p 124  
Storm, G. D., Continuous Cast Bronze Shapes—Feb, p 108  
Strauss, Eric L., A Universal Glass Finish for Reinforced Plastics—Jan, p 106  
Swayne, K. G. (see Cheney, A. J.)  
Taylor, K. M., Boron Nitride—Jan, p 88  
Teter, M. A., Flame-Plated Coatings Where Service Is Severe—Feb, p 100  
Topalian, Paul J., New Chromium Plate for Aluminum and Titanium—May, p 120  
VanDuzee, G. R., New Nondestructive Test for Magnesium Alloy Castings—Jan, p 98  
Vogel, Edward, Ceramic Mold Steel Castings—Jan, p 100  
Wentz, W. W., How to Heat Treat Titanium—June, p 126